

PLANTS OF THE REFUGE AT THE ENVIRONMENTAL EDUCATION CENTER

UPLAND PLANTS

Black Sage (*Salvia mellifera*)

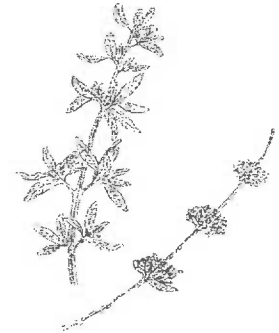
Origin: Native

Leaf Description: Leaves longer than they are broad; rough and bumpy around the edges.

Flower Description: Pale purple flowers grow in round, ball-like clusters along stalks; each stalk has four or five clusters.

Seeds: When flower clusters die, a grayish-brown husk remains, within which are small brown seeds.

Did You Know? A member of the mint family, this plant bears the attractive scent of sage.



Bull Thistle (*Cirsium vulgare*)

Origin: European

Plant Size: 1' - 2' tall with a long central stalk

Leaf Description: Long, wing-like leaves with painfully sharp edges.

Flower Description: Bright purple bristles compounded into a bell shape.

Seed: The flowers mature into a fluff that contains the seed and is dispersed by the wind.

Did you know? Bull Thistle is in the sunflower family.



California Aster (*Aster chilensis*)

Origin: Native

Plant Size: May grow up to 3' tall; made up of long tall stems with a flower cluster at the top of each.

Leaf Description: An oval leaf with a pointed tip.

Flower: Daisy-like flower with narrow, pinkish-white petals and a yellow or brown center.

Did You Know? Each small seed has a tuft of fuzz by which it is carried away with the wind.



California Buckwheat (*Eriogonum fasciculatum*)

Origin: Native

Plant Size: 1' - 2' tall shrub with long stalks

Leaf Description: Small course leaves attached to long branching stems. The underside of the leaves are covered in a soft, white fuzz.

Flower Description: Large compound head with white flowers. Blooms from March to October.

Did you know? Buckwheat is one of the few acceptable larval food plants for the Acmon Blue Butterfly.





California Poppy (*Eschscholzia Californica*)

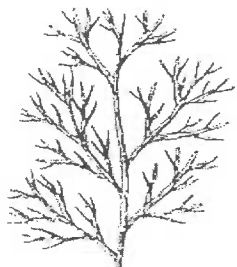
Origin: Native

Plant Size: 4" - 6" tall, small plant

Leaf Description: Small and thin, branch-like leaves.

Flower: Four petals which may be orange, yellow or yellow with orange at the base. Blooms from March to October.

Did you know? The California poppy is California's State flower



California Sagebrush (*Artemisia californica*)

Origin: Native

Plant Size: 2' - 4' tall, medium size shrub

Leaf Description: Smooth needle shaped leaves that are gray in color.

Flower Description: Brownish gray disc flowers. Blooms from July to December.

Did you know? This plant is very aromatic. It's small leaves allow it to lose very little water during the long, dry, California summers.



Ceanothus or Wild Lilac (*Ceanothus spp.*)

Origin: Native

Plant Size: Chaparral shrub can be 6' tall or more.

Leaf Description: Small tough evergreen leaves on very stiff branches; brilliant glossy green above, dull below.

Flower Description: Masses of blue or white flowers appear in early spring.

Seeds: Found inside tiny black berries

Did You Know? This is the food source for the larvae of the Echo Blue butterfly.



Common Yarrow (*Achillea millefolium*)

Origin: Worldwide distribution. Believed to be native of Eurasia and Africa

Plant Size: May be 6" tall or more; plant stays fairly low to the ground, expanding outward more than upward.

Leaf Description: Soft, feathery, fern-like leaves.

Flower Description: Flat-topped flower clusters are white to pink on a narrow stalk.

Did You Know? Yarrow is an important larval food source for the Painted Lady butterfly.



Coyote Brush (*Baccharis pilularis*)

Origin: Native

Plant Size: 10' tall, large size shrub

Leaf Description: Numerous small leaves.

Flower Description: Numerous, small, yellowish white tufts. Blooms from September to December.

Seeds: Seeds are attached to the tufts and are dispersed by the wind

Did you know? This plant was named accordingly because the female brush has white fluffy flowers that look like coyote fur.

Field Mustard (*Brassica rapa*)

Origin: Europe

Plant Size: 8"-39" tall with a long central stalk and multiple branches.

This plant starts to grow after the first rain, in the summer only the brown and dry branches remain.

Leaf Description: Large wavy leaves around the base of the long stalk.

Flower Description: Bright yellow flower clusters at the end of the branches. Blooms from January to May.

Did you know? It is said that missionaries scattered the field mustard seeds so that the paths that connected the California missions were easier to locate and follow.



Horehound (*Marrubium vulgare*)

Origin: Eurasia

Plant Size: 1' - 2' tall, small size bush

Leaf Description: Mint green leaves are sprout opposite from each other on a square stem.

Flower Description: White flowers spiraled around the upper part of the stem.

Did you know? This plant is in the mint family.



Lemonade Berry (*Rhus integrifolia*)

Origin: Native

Plant Size: Rounded evergreen, between 3' and 7' tall and even wider.

Leaf Description: Bright green leaves with sharp edges and a red vein running down the center.

Flower Description: Small, white-to-pinkish flowers surrounded by round, hairy leaves; blooms February to May.

Seeds: Pink to red flattened berries, usually sticky.

Did You Know? The berries have an acidic taste and used to be made into a drink.



Mallow (*Assurgentiflora arborea*)

Origin: Native

Plant Size: Shrubby, becoming 3'-5' tall

Leaf Description: Shaped like a maple leaf; leaves and stems are covered with a soft fuzz, giving the plant a pale green or whitish appearance.

Flower Description: Many flowers clustered at the end of stems. Flowers are pale purple-red with darker veins at the base.

Did You Know? This plant is an important larval food source for the West Coast Lady. Its soft leaves were once used as toilet paper.





Mexican Tobacco Tree (*Nicotiana glauca*)

Origin: Introduced from South America

Plant Size: The tree may grow more than 10' tall.

Leaf Description: Pale green leaves with an arrowhead shape.

Flower Description: Many tubular yellow flowers.

Seeds: Oval brown seed clusters; seeds and flowers may be present at the same time.

Did You Know? Seriously toxic to livestock, but can be used as a source of tobacco.



Monkey Flower (*Mimulus spp.*)

Origin: Native

Plant Size: Up to 2 ½" tall, small shrubby plant

Leaf Description: Flat, fingerlike dark green leaves that are sticky to the touch.

Flower Description: Orange flowers that bloom from May to August.

Did you know? If you look close the flowers look like the face of a monkey.



Narrow-leaf Milkweed (*Asclepius fascicularis*)

Origin: Native

Plant Size: Up to 3' tall

Leaf Description: Bunches of long narrow leaves crowded along the stems.

Flower Description: Flower clusters at the tips of the stems are greenish-white to purplish-white.

Seeds: Tiny seeds in a cottony mass that blow away when the seed pod opens.

Did You Know: This is the favorite larval food of the monarch butterfly. Small orange aphids may also be observed along its stems and leaves.



Poison Hemlock (*Conium maculatum*)

Origin: Introduced from Europe

Plant Size: Stems of first-year plants can reach 3 ft tall; stems of second- and third-year plants may be 9'-10'.

Leaf Description: Dark green, fern-like leaves.

Flower Description: Clusters of small white flowers in the shape of an umbrella grow at the tips of a large stalk; blooms from April to August.

Did You Know? When the philosopher Socrates was executed, he chose to drink hemlock tea as a poison; all parts of this plant are poisonous if eaten.



Meadow Barley (*Hordeum brachyantherum*)

Origin: Native

Plant Size: Stems about 10" tall

Leaf Description: Very narrow, tufted, low grass.

Flower Description: Narrow, spindle-shaped flowers.

Seeds: Brownish grass heads hang at the end of the central stem.

Did You Know? It forms colonies in wet meadows, brackish marsh edges, and seasonally wet or flooded valley grasslands.

Quail Bush or Big Saltbush (*Atriplex lentiformis*)

Origin: Native

Plant Size: Widely-spreading shrub, up to 7' tall.

Leaf Description: Pale green, leathery leaves with an arrowhead shape.

Flower Description: Yellow-green flower clusters; flower parts are thick and round, roughly resembling lentils.

Seeds: Very small brown seed.

Did You Know? This plant is an important food source for the Western pygmy blue butterfly.



Soaproot Plant (*Chlorogalum pomeridianum*)

Origin: Native

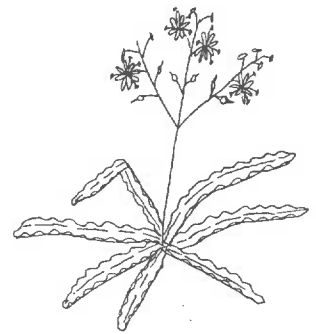
Plant Size: 1' - 2' wide, low growing.

Leaf Description: Long, narrow, wavy dark green leaves that grow close to the ground and wither in the summer heat.

Flower Description: Tall stem with many small white flowers scattered on many branches.

Seed: Bulb

Did you know? The bulb of this herb was used by the Ohlone Indians for many purposes, for each of the following uses the bulb was prepared differently: shampoo, a way to stun fish in creeks, as food, and as glue. The fibers on the bulb were used as a brush to scrape the acorn flour away from the sides of the mortar during acorn processing.



Toyon or Christmas Berry (*Heteromeles arbutifolia*)

Origin: Native

Plant Size: 6' or taller; bushy, round evergreen.

Leaf Description: Oval leaves with sharp teeth attached to reddish stems.

Flower Description: Clusters of small white flowers.

Seeds: Berry clusters change from green to red; resemble tiny apples.

Did You Know? This plant is a member of the rose family (Rosaceae). It received the name "Christmas Berry" because its bright red berries appear in winter.



SALT MARSH AND NONTIDAL SLOUGH PLANTS

Alkali Heath (*Frankenia salina*)

Origin: Native

Plant Size: 6" - 12" tall, low growing.

Leaf Description: Small oval shaped grow in bundles.

Flower Description: Small pink flowers found among the leaves. Blooms from May to November.

Did you know? This plant grows best in the drier parts of the salt marsh.





Australian Saltbush (*Atriplex semibaccata*)

Origin: Australia

Plant Size: 8" - 15" tall, low growing.

Leaf Description: Many small oblong shape, greyish-green leaves with toothed edges.

Flower Description: Small inconspicuous green flowers that bloom from April to December.

Fruit: Red, fleshy fruit attached to flower.

Did you know? The fruit provides food for the larvae of the pygmy blue butterfly.



Brass Buttons (*Cotula coronopifolia*)

Origin: Introduced from South Africa

Plant Size: About 6" tall

Leaf Description: Long, narrow, dark green leaves.

Flower Description: Flowers resemble the yellow center of a daisy but without the rays. Blooms from March to October.

Did You Know? This plant is a member of the sunflower family (*Asteraceae*). In the spring it can be observed growing among pickleweed.



Fat Hen (*Atriplex Triangularis*)

Origin: Native

Plant Size: 12" - 40" tall, small bush

Leaf Description: Broad triangular leaves located on this multi branched plant.

Flower Description: Small greenish flowers with no petals that blooms in June to November.

Did you know? Ground squirrels and mice love to eat the leaves. Look closely for white salt crystals on the leaves.



Filament Algae

Origin: Native

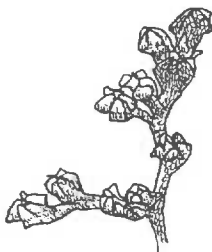
Diet: Uses photosynthesis to convert sunlight to energy.

Habitat: Floats in clumps in nontidal sloughs.

Plant Size: May be more than a foot in length.

Description: Long, thin "ropes" of greenish or brownish algae; may be filled with air bubbles.

Did You Know? Filament algae is most abundant in ponds rich in organic matter. It can be found in the nontidal slough water.



Ice Plant (*Mesembryanthemum nodiflorum*)

Origin: Africa

Plant Size: 8" - 24" long branches, low lying

Leaf Description: Fleshy round leaves that sparkle in the sun.

Did you know? The seeds of this plant turn red in the fall and sparkle like rubies.

Phytoplankton (*various species*)

Description: Drifting plants primarily single celled algae and diatoms.

Did you know? Phytoplankton is at the base of the food chain for the ocean, bay, slough, and mudflat food webs.

Pickleweed (*Salicornia virginica*)

Origin: Native

Plant Size: Low growing plant that spreads out across the salt marsh, branches grow 8" - 25" tall.

Leaf Description: The compressed leaves look like a series of pickles attached end to end.

Flower Description: Tiny white flowers that bloom from April to September.

Did you know? Pickleweed takes salt water up through the roots and stores excess salt in the top "pickles." In the fall, this part turns red and falls off, ridding the plant of the extra salt. This is the main food for the salt marsh harvest mouse.

Salt Grass (*Distichlis spicata*)

Origin: Native

Plant Size: 8" - 12" tall, low growing grass

Leaf Description: Stiff and wiry grass like leaves.

Flower Description: Inflorescence in bloom from April to July.

Did you know? This plant often has noticeable salt crystals that have been sweated out onto the leaves.

TIDAL SLOUGH (FRESHWATER) PLANTS

Broad-leaf Cattail (*Typha latifolia*)

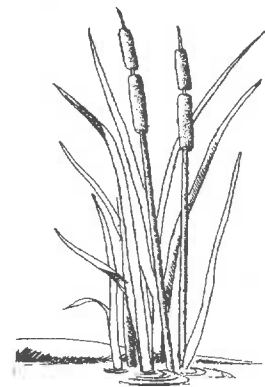
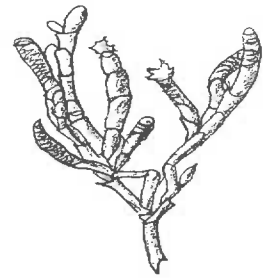
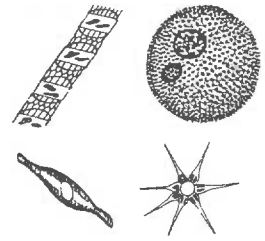
Origin: Native

Plant Size: Up to 5' tall

Leaf Description: Alternate, narrow, elongated, up to 8 per stem, usually less than 1/2" wide.

Flower Description: Male and female born separately in spikes on the same plant; male spike formed directly above female spike but usually separated from the female spike by a short interval, much narrower than the female spike, and falling away after pollen is shed, pale brown; female spike up to 8 inches long, usually less than 1" thick, dark brown.

Did you know? Indians used the roots for food and the leaves for baskets.





California Bulrush or Tule (*Scirpus californica*)

Origin: Native

Plant Size: 3' - 7' tall

Leaf Description: Leaves are long, reed-like and triangular in cross-section.

Flower Description: *Oval brown flowers bloom from May to November at the tips of stems.*

Did You Know? This plant is found in both brackish and fresh water marshes. Native Americans used tules for everything from building boats and houses to weaving mats and skirts.



Diatoms

Origin: Native

Plant Size: Microscopic

Did you know? This is a single celled algae that is a type of phytoplankton in a "Pillbox" shaped case of silicon.



SALT POND PLANTS

Green Algae

Origin: Native

Plant size: Microscopic

Leaf Description: Single cell in salt ponds; various shapes; green in color.

Did you know? Green algae is food for brine shrimp and brine flies.

